

RECENT APPROACHES IN THE MANAGEMENT OF OBSTRUCTIVE JAUNDICE

Essay

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LIST OF ABBREVIATIONS

CHD	Common hepatic duct
CD	Cystic duct
GB	Gall Bladder
CBD	Common bile duct
IVC	Inferior vena cava
RHD	Right hepatic duct
CA	Cystic artery
PSC	Primary sclerosing cholangitis
HCC	Hepatocellular carcinoma
ALP	Alanine aminotransferase
AST	Aspartate aminotransferase
GGT	Gamma Glutamyl Transferase
PT	prothrombin time
PTT	partial thromboplastin time
TUS	Transabdominal ultrasonography
MRCP	Magnetic resonance cholangiopancreatography
ERCP	Endoscopic retrograde cholangiopancreatography
EUS	Endoscopic ultrasound
FNA	Fine-needle aspiration
IOC	Intraoperative cholangiography
PTC	Percutaneous transhepatic cholangiography
DIC	disseminated intravascular coagulopathy
ANP	atrial natriuretic peptide
EBS	endoscopic biliary sphincterotomy
LCBDE	Laparoscopic common bile duct exploration
BD	biliary drain
CE-EUS	contrast-enhanced endoscopic ultrasound
ML	mechanical lithotripsy

LL	Laser lithotripsy
EHL	Electrohydraulic Lithotripsy
ESWL	Extracorporiel shock wave Lithotripsy
PD	Pancreatoduodenectomy
ERBD	Endoscopic retrograde biliary drainage
PTBD	percutaneous transhepatic biliary drainage
PpPD	pylorus preserving Pancreatoduodenectomy
HPD	Hepatopancreatoduodenectomy
TACE	Transcatheter arterial chemoembolization

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INTRODUCTION

Management of obstructive jaundice is a dynamic multidisciplinary field that witnessed a great deal of continuous evolution.

The goal of any radiologic procedure in obstructive jaundice is to confirm the presence of biliary obstruction; its location, and probable cause. It should also attempt to obtain a map of the biliary tree that will help the surgeon to determine the best approach to each individual case (*Vaishali et al., 2004*).

Recent modalities in management are endoscopic ultrasound (EUS), magnetic resonance cholangiopancreatography (MRCP) and ERCP and the choice between them became simplified. MRCP is the first option for diagnosis, EUS in doubtful cases needing sampling for pathology and ERCP as therapeutic alternative to some surgical procedures. (*Sahel et al., 2004*)

MRCP was introduced as an absolutely non-invasive imaging modality, it requires neither contrast medium injection, nor biliary endoscopic intervention. Both primary liver tumors and dilatation of biliary system could be demonstrated in MRCP. (*Qin and Tang, 2003*)

The role of endoscopic ultrasound (EUS) in the diagnosis of biliary strictures is well established. Emerging evidence suggest that it may also play therapeutic role, it differentiates between benign and malignant causes of biliary strictures; the diagnostic yield of EUS combined with fine needle aspiration (FNA) is excellent, especially in distal bile duct strictures and far

exceeding ERCP with brushings recently EUS guided biliary drainage was successful. (***Conway and Mishra, 2008***)

ERCP is highly sensitive and specific but invasive and inconvenient for some patients, and it has also morbidity ranging from 5-10% and mortality <1%. Therefore, EUS is replacing ERCP in the diagnosis of biliary diseases but the latter is needed for treatment. (***Rocca et al., 2006***)

AIM OF THE WORK

The aim of this study is to review the current modalities in the management of obstructive jaundice and compare between them. This is hoped to be an aid for the surgeon dealing with these cases and to serve as a guide for approaching individual patients.

ANATOMY OF THE BILIARY TRACT AND PANCREATIC DUCT

The biliary tree consists of the system of vessels and ducts which collect and deliver bile from the liver parenchyma to the second part of the duodenum.

It is conventionally divided into intra and extra hepatic biliary ducts. The intrahepatic (IH) ducts are formed from the larger bile canaliculi which come together to form segmental ducts. The extrahepatic (EH) biliary tree consists of the right and left hepatic ducts, The common hepatic duct (CHD), the cystic duct (CD), gall bladder (GB) and the common bile duct (CBD) fig(1). *(Borley, 2005)*

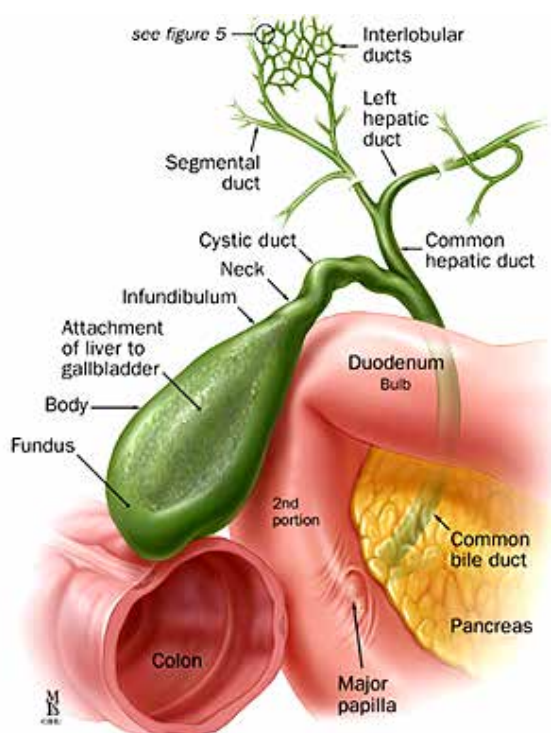


Fig (1): Intra and extra hepatic biliary ducts *(Blumgart&Hann, 2007)*

Intra hepatic biliary tract

The liver is divided into two major portions and a dorsal lobe (caudate lobe). The right liver and the left liver are respectively drained by the right and the left hepatic ducts whereas the dorsal lobe (caudate lobe) is drained by one or several ducts joining both the right and the left hepatic ducts. The intra hepatic ducts are tributaries of the corresponding hepatic ducts which form part of major portal tracts (**Standring et al., 2006**).

Extrahepatic biliary tract

The extrahepatic biliary tract consists of the right and the left hepatic ducts, the common hepatic duct, the common bile duct, the cystic duct and the gallbladder (fig.2) (**Blumgart&Hann 2007**)

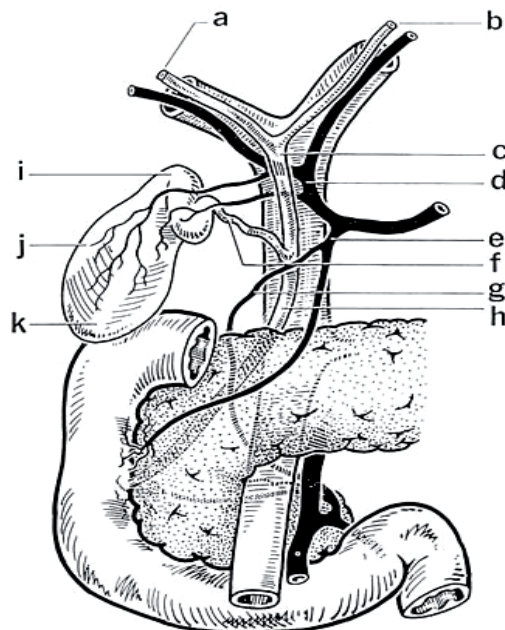


Fig (2): Anterior aspect of the biliary anatomy : right hepatic duct (a); left hepatic duct (b); CHD (c); hepatic artery (d); gastroduodenal artery (e); CD (f); retroduodenal artery (g); CBD (h) neck of the GB (i); body of the GB (j); fundus of the GB (k). (**Blumgart&Hann,2007**)